



SHILAP Revista de Lepidopterología

ISSN: 0300-5267

avives@orange.es

Sociedad Hispano-Luso-Americana de
Lepidopterología
España

Ustjuzhanin, P. Ya.; Kovtunovich, V. N.

On the fauna of the plume moths of Ghana (Lepidoptera: Pterophoridae)

SHILAP Revista de Lepidopterología, vol. 43, núm. 172, diciembre, 2015, pp. 577-582

Sociedad Hispano-Luso-Americana de Lepidopterología

Madrid, España

Available in: <http://www.redalyc.org/articulo.oa?id=45543699005>

- How to cite
- Complete issue
- More information about this article
- Journal's homepage in redalyc.org

redalyc.org

Scientific Information System

Network of Scientific Journals from Latin America, the Caribbean, Spain and Portugal

Non-profit academic project, developed under the open access initiative

On the fauna of the plume moths of Ghana (Lepidoptera: Pterophoridae)

P. Ya. Ustjuzhanin & V. N. Kovtunovich

Abstract

The list of Ghana Pterophoridae includes 22 species, with 14 species first recorded from Ghana. New synonymies are established for three species: *Exelastis caroli* Gielis, 2008 = *Exelastis ebalensis* (Rebel, 1907) **syn. n.**; *Hellinsia ruhuruinia* Gielis, 2011 = *Hellinsia ambo* Ustjuzhanin & Kovtunovich, 2011 **syn. n.**; *Pterophorus ashanti* Arenberger, 1995 = *Cosmoclostis schouteni* Gielis, 1990 **syn. n.**

KEY WORDS: Lepidoptera, Pterophoridae, new synonyms, new records, West Africa, Ghana.

Sobre la fauna de terofóridos de Ghana (Lepidoptera: Pterophoridae)

Resumen

La lista de Pterophoridae de Ghana incluye 22 especies, con 14 especies primera cita para Ghana. Se establecen nuevas sinonimias para tres especies: *Exelastis caroli* Gielis, 2008 = *Exelastis ebalensis* (Rebel, 1907) **syn. n.**; *Hellinsia ruhuruinia* Gielis, 2011 = *Hellinsia ambo* Ustjuzhanin & Kovtunovich, 2011 **syn. n.**; *Pterophorus ashanti* Arenberger, 1995 = *Cosmoclostis schouteni* Gielis, 1990 **syn. n.**

PALABRAS CLAVE: Lepidoptera, Pterophoridae, nuevas sinonimias, nuevas citas, Oeste de África, Ghana.

Introduction

The Pterophoridae comprise 1,318 species in 90 genera distributed around the world (NIEUKERKEN *et al.*, 2011). The plume moths of Western Africa have been studied up to now by fits and starts. The best investigated region is the Republic of Côte d'Ivoire (République de Côte d'Ivoire) due to the works of the well-known specialist in Pterophoridae, Louis Bigot (BIGOT, 1962; 1970; BIGOT & BOIREAU, 2002; BIGOT & BOIREAU, 2006).

There has been no special research on the Pterophoridae of Ghana until nowadays. In the Catalog of the world fauna Pterophoridae (GIELIS, 2003) six species were indicated: *Walsinghamiella eques* (Walsingham, 1891), *Xyroptilia africana* Bigot, 1969, *Pterophorus candidalis* (Walker, 1864), *Pterophorus lampra* (Bigot, 1969), *Pterophorus spissa* (Bigot, 1969), *Cosmoclostis schouteni* Gielis, 1990. Later, six more species were added (GIELIS, 2011): *Platyptilia farfarella* Zeller, 1867, *Sphenarches anisodactylus* (Walker, 1864), *Stenodacma wahlbergi* (Zeller, 1852), *Megalorhipida tessmanni* (Strand, 1912), *Exelastis crudipennis* (Meyrick, 1932), *Pterophorus lampra* (Bigot, 1969).

In November, 2011 the authors of this article participated in the International Lepidopterological Congress in Ghana. For more than 2 weeks we visited a number of localities and gathered plume moths. As a result, 22 Pterophoridae species became known, 14 of which had not been observed in the Ghana fauna before (in the article they are marked with *).

List of collecting localities

Biakpa - Volta Region, 06° 51' N 000° 25' W.

Bomfobiri - Ashanti Region, Bomfobiri Wildlife Sanctuary, 06° 57' N 001° 11' W, h 240 m.

Bunso Arboretum - Eastern Region, Bunso Arboretum, 06° 16' N 000° 27' W, h 230 m.

Hans Cottage Botel - 30 km N Cape Coast, Hans Cottage Botel, 05° 10' N 001° 18' W, h 50 m.

Kakum - Cape Coast, Kakum National Park, 05° 20' N 001° 23' W, h 130 m.

Kogyae Strict - Ashanti Region, 25 km E Ejura, Kogyae Strict N. R., 07° 18' N 001° 10' W, h 200 m.

Shai Hills - Greater Accra Region, Shai Hills Production Reserve, 05° 57' N 000° 13' W, h 45 m.

15 km SSE Ejura - Ashanti Region, 15 km SSE Ejura, 07° 19' N 001° 15' W, h 200 m.

Taxonomy

**Ochyrotica africana* (Bigot, 1969)

Steganodactyla africana Bigot, 1969: 170. (Type locality: Zaire)

Material: 1 ♀, Kakum, 19-XI-2011, leg. W. Mey; 1 ♀, Hans Cottage Botel, 18-XI-2011, leg. V. Kovtunovich & P. Ustjuzhanin.

Distribution: Congo, Gabon, Uganda, Tanzania, Malawi, Ghana. **New for Ghana.**

**Deuterocopus socotranus* Rebel, 1907

Deuterocopus socotranus Rebel, 1907: 115. (Type locality: Yemen, Socotra)

Deuterocopus viticola Meyrick, 1911: 104. (Type locality: Sri Lanka)

Deuterocopus triannulatus Meyrick, 1913: 107. (Type locality: Australia)

Deuterocopus deltoptilus Meyrick, 1930: 565. (Type locality: Uganda)

Deuterocopus henriotti Bigot & Boireau, 2006: 16-17. (Type locality: Côte d'Ivoire)

Material: 1 ♂, Kogyae Strict., 24-XI-2011; 1 ♂, 15 km SSE Ejura, 25-XI-2011, leg. V. Kovtunovich & P. Ustjuzhanin.

Distribution: Yemen, Rep. S. Africa, Somalia, Malawi, Zambia, Zimbabwe, Mozambique, Ivory Coast, Ghana. - Oman, Japan, India, Sri Lanka, Thailand, Taiwan, Burma, Indonesia, New Guinea, Australia. **New for Ghana.**

Platyptilia farfarella Zeller, 1867

Platyptilus farfarellus Zeller, 1867: 334. (Type locality: Poland)

Platyptilia molopias Meyrick, 1906: 135. (Type locality: Sri Lanka)

Platyptilia petila Yano, 1963: 851. (Type locality: Solomon Islands)

Platyptilia periacta Meyrick, 1910: 411 (Type locality: Cape Town, Rep. S. Africa)

Platyptilia claripicta Fletcher, 1910: 400. (Type locality: Seychelles)

Material: 6 ♂♂, 1 ♀, Bunso Arboretum, 22-XI-2011, leg. Kovtunovich V. & Ustjuzhanin P.; 2 ♂♂, Kakum, 19-22-XI-2011, leg. Sz. Safian, W. Mey; 2 exemplars, Biakpa, leg. W. Mey.

Distribution: Europe, Asia, Rep. S. Africa, Swaziland, Madagascar, Mauritius, Uganda, Kenya, Tanzania, Malawi, San Tome Isl., Seychelles, Nigeria, Ghana, Sri Lanka, Indonesia, Philippines.

**Stenoptilia zophodactyla* (Duponchel, 1840)

Perthophorus zophodactylus Duponchel, 1840: 668. (Type locality: France)

Material: 1 ♂, Bunso Arboretum, 16-18-XI-2011, leg. Sz. Safian.

Distribution: Widespread throughout tropical and subtropical regions. **New for Ghana.**

**Stenoptilodes taprobanes* (Felder & Rogenhofer, 1875)

Amblyptilia taprobanes Felder & Rogenhofer, 1875: Pl. 140, fig. 54. (Type locality: Sri Lanka)

Platyptilia brachymorpha Meyrick, 1888: 240. (Type locality: India)

Platyptilia seeboldi Hofmann, 1898: 33. (Type locality: Syria)

Platyptilia terlizzii Turati, 1926: 67. (Type locality: Libya)

Amblyptilia zavatterii Hartig, 1953: 67. (Type locality: Italy)

Platyptilia legrandi Bigot, 1962: 86. (Type locality: Seychelles)

Stenoptilodes vittata Service, 1966: 11. (Type locality: Nigeria)

Material: 1 ♀, Kakum, 19-XI-2011; 1 ♂, Bunso Arboretum, 22-XI-2011; 5 exemplars, Kogyae Strict, 24-XI-2011; 2 ♂♂, 1 ♀, Shai Hills, 27-XI-2011, leg. V. Kovtunovich & P. Ustjuzhanin.

Distribution: Widespread throughout tropical and subtropical regions. **New for Ghana.**

**Megalorhipida leucodactyla* (Fabricius, 1794)

Pterophorus leucodactylus Fabricius, 1794: 346. (Type locality: Virgin Islands)

Pterophorus defectalis Walker, 1864: 943. (Type locality: Sierra Leone)

Material: 3 exemplars, Bunso Arboretum, 22-XI-2011; 1 ♂, 15 km SSE Ejura, 25-XI-2011; 1 ♂, Bomfobiri, 26-XI-2011, leg. V. Kovtunovich & P. Ustjuzhanin.

Distribution: Widespread throughout tropical and subtropical regions. **New for Ghana.**

Megalorhipida tessmanni (Strand, 1912)

Oxyptilus tessmanni Strand, 1912: 66. (Type locality: Cameroon)

Oxyptilus aguessei Bigot, 1964: 178. (Type locality: Guinee)

Antarches luqueti Gibeaux, 1994: 77. (Type locality: Madagascar)

Material: 39 exemplars, Kakum, 19-XI-2011; 8 exemplars, Bunso Arboretum, 22-XI-2011; 1 ♂, Kogyae Strict, 24-XI-2011, leg. V. Kovtunovich & P. Ustjuzhanin.

Distribution: Cameroon, Guinee, Ghana, Rep. S. Africa, Madagascar, Reunion Isl., Yemen, Zimbabwe, Malawi.

**Megalorhipida vivax* (Meyrick, 1909)

Trichoptilus vivax Meyrick, 1909: 1 (Type locality: Pretoria, Rep. S. Africa)

Material: 1 ♂, Bunso Arboretum, 22-XI-2011, leg. V. Kovtunovich & P. Ustjuzhanin.

Distribution: Rep. S. Africa, Lesotho, Swaziland, Gambia, Malawi, Zimbabwe, Ghana. **New for Ghana.**

Xyroptila africana Bigot, 1969

Xyroptila africana Bigot, 1969: 180. (Type locality: Zaire)

Material: 1 ♀, Kakum, 19-XI-2011, leg. L. Aarvik.

Distribution: Congo, Ghana.

Sphenarches anisodactylus (Walker, 1864)

Oxyptilus anisodactylus Walker, 1864: 934. (Type locality: Sri Lanka)

Pterophorus diffusalis Walker, 1864: 945. (Type locality: Australia)

Sphenarches synophrys Meyrick, 1886: 17. (Type locality: New Hebrides, Tonga)

Platyptilia pygmaeana Strand, 1913: 64. (Type locality: Cameroon)

Megalorhipida rishwani Makhan, 1994: 353. (Type locality: Suriname)

Material: 1 ♀, Bunso Arboretum, 16-18-XI-2011, leg. Sz. Safian.

Distribution: Rep. S. Africa, Cameroon, Seychelles, Reunion Isl., Kenya, Tanzania, Congo, Gambia, Guinee, Nigeria, Chad, Malawi, Swaziland, Côte d'Ivoire, Ghana, Madagascar, Brazil, Dominica, Grenada, Panama, Virgin Isl., Bahamas, St. Thomas, Puerto Rico, Peru, Paraguay, Fiji Isl., New Hebrides, Tonga Isl., New Caledonia, Palau, Bonin Isl., Guam, Nepal, Japan, China, Sri Lanka, India, Taiwan, Thailand, Vietnam, Malaysia, Indonesia, Solomon Isl., New Guinea, Bismarck Isl., Australia.

**Prichotilus yakovlevi* Ustjuzhanin & Kovtunovich, 2011

Prichotilus yakovlevi Ustjuzhanin & Kovtunovich, 2011: 358. (Type locality: Kasungu N. P., Malawi)

Material: 2 ♂♂, Kogyae Strict, 24-XI-2011; 3 ♀♀, 15 km SSE Ejura, 25-XI-2011, leg. V. Kovtunovich & P. Ustjuzhanin.

Distribution: Malawi, Ghana. **New for Ghana.**

**Buckleria girardi* Gibeaux, 1992

Buckleria girardi Gibeaux, 1992: 14. (Type locality: Guinee)

Material: 1 ♂, Kogyae Strict, 24-XI-2011; 1 ♂, 15 km SSE Ejura, 25-XI-2011, leg. V. Kovtunovich & P. Ustjuzhanin.

Distribution: Guinee, Malawi, Ghana. **New for Ghana.**

Stenodacma wahlbergi (Zeller, 1851)

Pterophorus wahlbergi Zeller, 1851: 346. (Type locality: Rep. S. Africa)

Pterophorus rutilalis Walker, 1864: 943. (Type locality: "Port Natal", Rep. S. Africa)

Oxyptilus rutilans Wollaston, 1879: 441. (Type locality: St. Helena Isl.)

Stenodacma iranella Amsel, 1959: 30. (Type locality: Iran)

Material: 1 ♀, Bunso Arboretum, 16-18-XI-2011, leg. Sz. Safian; 2 ♂♂, 22-XI-2011, leg. V. Kovtunovich & P. Ustjuzhanin.

Distribution: Rep. S. Africa, Cameroon, Swaziland, Zimbabwe, Malawi, Tanzania, Kenya, Ghana, Madagascar, Comoros, Reunion Isl., Rodriguez Isl., Mauritius, Seychelles, St. Helena Isl., Saudi Arabia, Iran, Pakistan.

**Inferuncus toxochorda* (Meyrick, 1934)

Platyptilia toxochorda Meyrick, 1934: 402. (Type locality: Sao Tome)

Platyptilia pentheres Bigot, 1969: 191. (Type locality: Zaire)

Material: 19 specimens, Bunso Arboretum, 22-XI-2011, leg. V. Kovtunovich & P. Ustjuzhanin.

Distribution: Sao Tome, Congo, Tanzania, Ghana. **New for Ghana.**

**Exelastis vuattouxi* Bigot, 1970

Exelastis vuattouxi Bigot, 1970: 761. (Type locality: Côte d'Ivoire)

Material: 3 specimens, Bunso Arboretum, 22-XI-2011; 11 specimens, Kogyae Strict, 24-XI-2011; 21 specimens, 15 km SSE Ejura, 25-XI-2011; 1 ♀, Bomfobiri, 26-XI-2011; 3 exemplars, Shai Hills, 27-XI-2011, leg. V. Kovtunovich & P. Ustjuzhanin.

Distribution: Côte d'Ivoire, Rep. S. Africa, Swaziland, Nigeria, Zimbabwe, Malawi, Ghana. **New for Ghana.**

**Exelastis pumilio* (Zeller, 1873)

Mimeseoptilus pumilio Zeller, 1873: 324. (Type locality: Texas, USA)

Marasmarcha liophanes Meyrick, 1886: 19. (Type locality: Reunion Island)

Mimaesoptilus gilvidorsis Hedemann, 1896: 8 (not Zeller, 1877). (Type locality: Virgin Islands, St. Croix)

Marasmarcha tenax Meyrick, 1913: 268. (Type locality: Barberton, Mpumalanga, Rep. S. Africa)

Exelastis tenax (Meyrick, 1913) (GIELIS, 2003)

Material: 1 ♀, Hans Cottage Botel, 18-XI-2011; 8 specimens, Kakum, 20-XI-2011; 8 specimens, Bunso Arboretum, 22-XI-2011; 1 ♂, Kogyae Strict, 24-XI-2011; 3 ♂♂, 2 ♀♀, Shai Hills, 27-XI-2011, leg. V. Kovtunovich & P. Ustjuzhanin.

Distribution: Occurs throughout tropical and subtropical regions. **New for Ghana.**

Exelastis crudipennis (Meyrick, 1932)

Marasmarcha crudipennis Meyrick, 1932: 252. (Type locality: Uganda)

Exelastis bergeri Bigot, 1969: 176. (Type locality: Zaire)

Material: 9 specimens, Kakum, 19-20-XI-2011; 5 specimens, Bunso Arboretum, 22-XI-2011; 2

♂♂, Kogyae Strict, 24-XI-2011; 1 ♂, Bomfobiri, 26-XI-2011, leg. V. Kovtunovich, P. Ustjuzhanin, W. Mey.

Distribution: Uganda, Rep. S. Africa, Zimbabwe, Malawi, Congo, Cameroon, Gabon, Madagascar, Comoros.

**Exelastis ebalensis* (Rebel, 1907)

Alucita ebalensis Rebel, 1907: 114. (Type locality: Yemen)

Exelastis caroli Gielis, 2008: 48. (Type locality: Kenya). **Syn. n.**

Material: 1 ♂, 1 ♀, Shai Hills, 27-XI-2011, leg. V. Kovtunovich & P. Ustjuzhanin.

Distribution: Yemen, Kenya, Ghana. **New for Ghana.**

Notes: During a comparison of *Exelastis ebalensis* (Rebel, 1907) and *Exelastis caroli* Gielis, 2008 which was based on external characters and genitalia structure, we concluded that *Exelastis caroli* is a synonym of *Exelastis ebalensis*.

**Exelastis phlyctaenias* (Meyrick, 1911)

Marasmarcha phlyctaenias Meyrick, 1911: 106. (Type locality: Sri Lanka)

Material: 1 ♀, Shai Hills, 27-XI-2011, leg. V. Kovtunovich & P. Ustjuzhanin.

Distribution: Sri Lanka, Rep. S. Africa, Tanzania, Malawi, Ghana, Madagascar, Reunion Island, Ethiopia, Virgin Islands, Philippines. **New for Ghana.**

**Hellinsia aethiopica* (Amsel, 1963)

Leioptilus aethiopicus Amsel, 1963: 6. (Type locality: Ethiopia)

Material: 1 ♂, Kakum, 19-22-XI-2011, leg. Sz. Safian.

Distribution: Ethiopia, Congo, Nigeria, Ghana. **New for Ghana.**

**Hellinsia ambo* Ustjuzhanin & Kovtunovich, 2011

Hellinsia ambo Ustjuzhanin & Kovtunovich, 2011: 356. (Type locality: West Shewa, Ethiopia)

Hellinsia ruhuruinia Gielis, 2011: 51. (Type locality: Aberdare N. P., Ruhuruini Gates, Kenya). **Syn. n.**

Material: 2 ♂♂, 1 ♀, Biakpa, 22-24-XI-2011, leg. W. Mey.

Distribution: Ethiopia, Ghana, Kenya, Rwanda (GIELIS, 2011).

Notes: During a comparison of *Hellinsia ambo* Ustjuzhanin & Kovtunovich, 2011 and *Hellinsia ruhuruinia* Gielis, 2011 which was based on external characters and genitalia structure, we concluded that *Hellinsia ruhuruinia* is a synonym of *Hellinsia ambo*.

Cosmoclostis schouteni Gielis, 1990

Cosmoclostis schouteni Gielis, 1990: 123. (Type locality: Côte d'Ivoire)

Pterophorus ashanti Arenberger, 1995: 250. (Type locality: Ghana). **Syn. n.**

Material: 1 ♂, Kakum, 19-20-XI-2011, leg. W. Mey.

Distribution: Côte d'Ivoire, Cameroon, Nigeria, Ghana.

Notes: During a comparison of *Cosmoclostis schouteni* Gielis, 1990 and *Pterophorus ashanti* Arenberger, 1995 which was based on external characters and genitalia structure, we concluded that *Pterophorus ashanti* is a synonym of *Cosmoclostis schouteni*.

Acknowledgements

The authors are grateful to the colleagues - entomologists, participants of the International Lepidopterological Congress in Ghana: Vasily Anikin (Saratov, Russia), Vadim Zolotuhin (Uljanovsk, Russia), Wolfram Mey (Berlin, Germany), Szabolcs Sáfíán (Budapest Hungary) and Leif Aarvik (Oslo, Norway) for their assistance in the collection of the materials.

BIBLIOGRAPHY

- BIGOT, L., 1964.— Les Pterophoridae de Côte d'Ivoire.— *Bulletin de la Société des Sciences Naturelles de Nîmes*, **50**: 112-115.
- BIGOT, L., 1970.— Deuxième note sur les lépidoptères Pterophoridae de la Côte d'Ivoire.— *Bulletin de l'Institut fondamental d'Afrique noire*, **32**(A): 760-763.
- BIGOT, L., & BOIREAU, P., 2002.— Nouvelles données sur le peuplement des lépidoptères Pterophoridae de la Côte d'Ivoire.— *Bulletin de la Société Linnéenne de Provence*, **53**: 33-37.
- BIGOT, L., & BOIREAU, P., 2006.— Compléments a l'inventaire raisonne des Pterophoridae (Lepidoptera) de la Côte d'Ivoire.— *Bulletin de la Société Linnéenne de Provence*, **57**: 15-17.
- GIELIS, C., 2003.— Pterophoroidea & Alucitoidea (Lepidoptera).— *World Catalogue of Insects*, **4**: 1-198.
- GIELIS, C., 2011.— Notes on some African Pterophoridae, with Description of new species (Lepidoptera).— *Boletín de la Sociedad entomológica Aragonesa*, **49**: 33-63.
- VAN NIEUKERKEN, E., KAILA, L., KITCHING, I., KRISTENSEN, N., LEES, D., MINET, J., MITTER, C., MUTANEN, M., REGIER, J., SIMONSEN, T., WAHLBERG, N., YEN S.-H., ZAHIRI, R., ADAMSKI, D., BAIXERAS, J., BARTSCH, D., BENGTSSON, B., BROWN J., BUCHELI S., DAVIS, D., DE PRINS J., DE PRINS W., EPSTEIN M., GENTILI-POOLE, P., GIELIS, C., HÄTTENSCHWILER, P., HAUSMANN, A., HOLLOWAY, J., KALLIES, A., KARSHOLT, O., KAWAHARA, A., KOSTER, J., KOZLOV, M., LAFONTAINE, J., LAMAS, G., LANDRY, J.-F., LEE, S., NUSS, M., PARK, K.-T., PENZ, C., ROTA, J., SCHMIDT, B., SCHINTLMEISTER, A., SOHN, J., SOLIS, M., TARMANN, G., WARREN, D., WELLER, S., YAKOVLEV, R., ZOLOTUHN, V., ZWICK, A., 2011.— Order Lepidoptera Linnaeus, 1758.— *In* Z.-Q. ZHANG (Ed.). Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness.— *Zootaxa*, **3148**: 212-221.

*P. U.

Altai State University

Lenina, 61

656049 Barnaul

RUSIA / RUSSIA

E-mail: petrust@mail.ru

V. K.

Moscow Society of Nature Explorers

Malaya Filevskaya str., 24/1, app. 20

121433 Moscow

RUSIA / RUSSIA

E-mail: vasko-69@mail.ru

*Autor para la correspondencia / *Corresponding author*

(Recibido para publicación / *Received for publication* 17-VIII-2014)

(Revisado y aceptado / *Revised and accepted* 1-IX-2014)

(Publicado / *Published* 30-XII-2015)